# Recall Campaign

FREIGHTLINER LLC
A DaimlerChrysler Company

**January 2001**
**FL269AB**
**(NHTSA 00V-247)**

## Copy of Letter to Owner

### Subject:RV Steer Axle Slack Adjusters

Dear Freightliner Custom Chassis Vehicle Owner:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act and the Canadian Motor Vehicles Safety Act.

Freightliner LLC, on behalf of its wholly-owned subsidiary, Freightliner Custom Chassis Corporation, has determined that a defect which effects motor vehicle safety exists on Specific Freightliner Custom Chassis RV models XC, XCA and VCL manufactured between January 1, 1997, and June 30, 2000, equipped with independent front suspension "only" and specific Meritor slack adjusters.

The subject vehicles may experience an inability to achieve full 50 degree wheel cut due to interference with the adjusting nut hitting the front axle knuckle post. This will only happen when the brakes are applied and a full turn to either direction is attempted. Should a loss of steering or reduction in braking occur, this could result in a vehicle crash without prior warning.

The modification consists of replacing the slack adjusters.

Repair kits are now available for authorized dealers to order. You should contact your authorized dealer to arrange to have your vehicle(s) modified and to assure that parts are available at the dealer.

When you contact your dealer, refer to campaign number **FL269AB**. Once kit(s) are received at the dealership, the modification will take approximately 1-1/4 hour and will be performed at no charge to you.

IMPORTANT: When the recall has been completed, please ensure that a sticker has been affixed to your vehicle referencing **FL269AB** and the date the work was performed.

If you do not own the vehicle that corresponds to the identification number(s) which appear on the Recall Notification, please return the notification to the Warranty Campaigns Department with any information you can furnish that will assist us in locating the present owner. If you have leased this vehicle, please make sure this notification is immediately forwarded to the lessee.

If you are unable to have the defect remedied without charge and within a reasonable time after you tender the vehicle for repair, please contact the Warranty Campaigns Department at (800) 547-0712, 7:00 a.m. to 4:30 p.m. Pacific Time, Monday through Friday, or the Customer Assistance Center at (800) FTL-HELP, after normal business hours. You may also wish to notify the Administrator, National Highway Traffic Safety Administration, 400 7th Street S.W., Washington, D.C. 20590, or phone (888) 327-4236. If your vehicle is involved in the Canadian portion, you may notify the Manager, Recall and Public Compliance, Road and Motor Vehicle Traffic Safety Branch, Transport Canada, Ottawa, Ontario, or phone (613) 993-9851.

We regret any inconvenience this action may cause, but feel certain you understand our interest in motor vehicle safety.

WARRANTY CAMPAIGNS DEPARTMENT

Enclosure

# Work Instructions

## Subject: RV Steer Axle Slack Adjusters

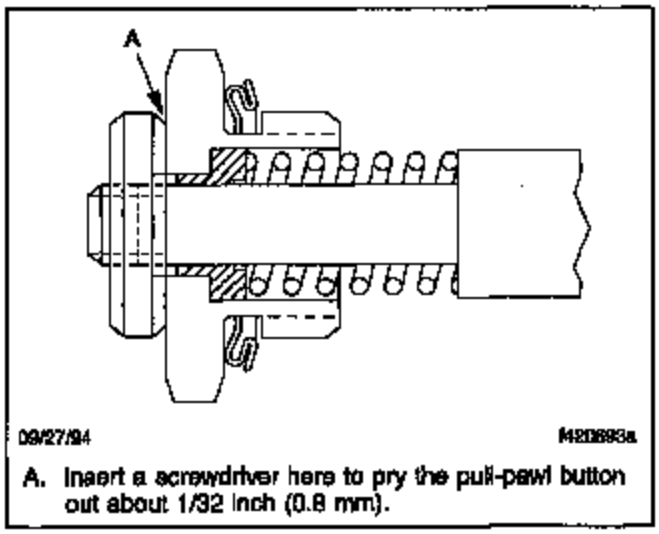
**MODELS AFFECTED: Specific Freightliner Custom Chassis RV models XC, XCA, and VCL manufactured between January 1, 1997, and June 30, 2000, equipped with independent front suspension "only" and specific Meritor slack adjusters.**

### Slack Adjuster Replacement

1. Park the vehicle on a level surface, shut down the engine, and apply the parking brakes. Chock the rear tires.
2. Check the frontwall under the dash on the driver's side of the vehicle for a completion label (Form W-147). If the completion label for Recall FL269 is found or if Gunite automatic slack adjusters are installed on the steer axle, no further work is required. Remove the chocks from the rear tires.

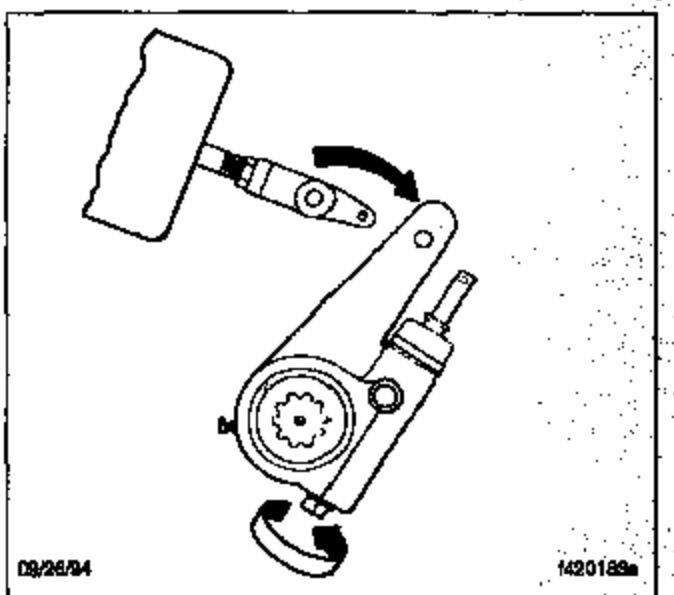
### MERITOR AUTOMATIC SLACK ADJUSTER REMOVAL

1. Remove the retainer clips from the large and small clevis pins. Remove the clevis pins.
2. Using a screwdriver or an equivalent tool, pry the pawl button out about 1/32 inch (0.8 mm). See **Fig. 1**. Wedge the tool in place. Pull-pawls are spring-loaded; when the tool is removed, the pull-pawl will engage the teeth automatically.
3. Using a wrench, manually turn the square adjusting nut clockwise (as if tightening a right-hand threaded fastener) to move the slack adjuster away from the clevis. See **Fig. 2**.
4. Remove and save the snap ring and washers (shims) that secure the slack adjuster in place on the brake camshaft.
5. Remove the slack adjuster from the camshaft.




A. Insert a screwdriver here to pry the pull-pawl button out about 1/32 inch (0.8 mm).

**Fig. 1, Pull-Pawl Assembly**




Turn the manual adjusting nut clockwise.

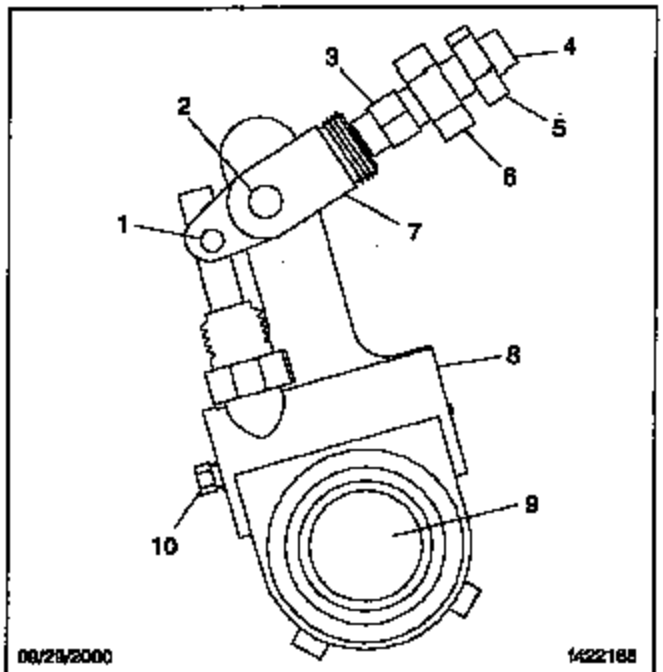
**Fig. 2, Meritor Slack Adjuster Removal**

6. Remove the clevis from the brake chamber pushrod. Do not remove the clevis jam nut.

## GUNITE AUTOMATIC SLACK ADJUSTER INSTALLATION

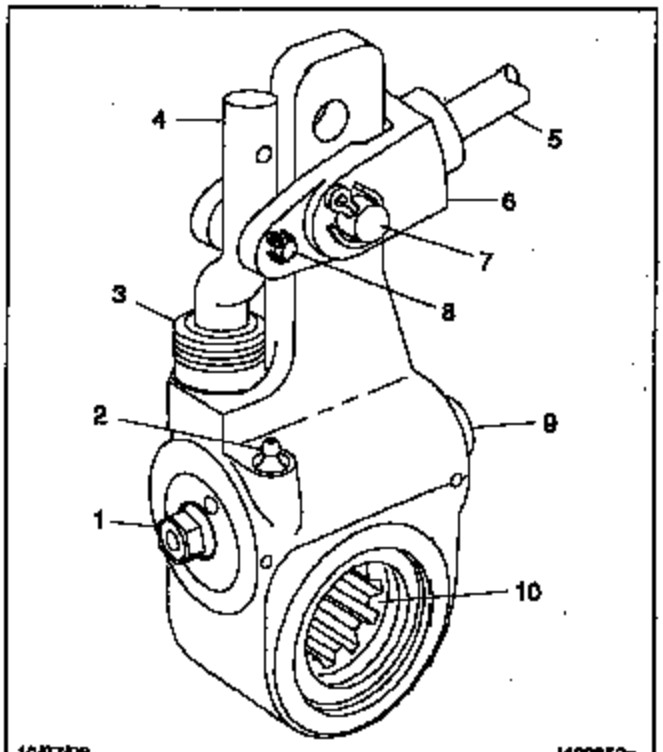
IMPORTANT: When installing or replacing a Gunite automatic slack adjuster, a new collar lock clevis must be installed.

1. Place the 1-1/4-inch locknut on the brake chamber pushrod against the 5/8-inch jam nut. See Fig. 3.
2. Coat the end of the pushrod with antiseize compound and thread the collar nut onto the pushrod. Do not tighten the jam nut yet.
3. Install the new clevis on the slack adjuster. See Fig. 4.
   - 3.1 Align the holes in the new clevis with those in the slack adjuster.
   - 3.2 Apply antiseize compound to the clevis pins.
   - 3.3 Insert the large and small clevis pins in the holes and secure with cotter pins.
4. Install the automatic slack adjuster on the brake camshaft.
   - 4.1 Coat the camshaft splines and slack adjuster gear splines with a rust-preventive grease.




1. Clevis Pin, 1/4 in
2. Clevis Pin, 1/2 in
3. Collar Nut, 3/4 in
4. Pushrod
5. Jam Nut, 5/8 in
6. Locknut, 1-1/4 in
7. Collar Lock Clevis
8. Slack Adjuster
9. Cam Shaft
10. Adjusting Hexnut

**Fig. 3, Slack Adjuster Installation**




1. Adjusting Hexnut
2. Grease Fitting
3. Boot
4. Link
5. Brake Chamber Pushrod
6. Clevis
7. Clevis Pin, 1/2-in
8. Clevis Pin, 1/4-in
9. Grease Relief Opening
10. Slack Adjuster Spline

**Fig. 4, Gunite Slack Adjuster**

4.2 Using the old snap ring and washers, install the slack adjuster on the camshaft. Make sure the slack adjuster is shimmed correctly. There should be at least one washer on each side of the slack adjuster.

4.3 Check the end play. There should be no more than 1/16-inch (1.6 mm) end play. Adjust the shims, as needed.

5. Turn the 7/16-inch adjusting hexnut clockwise until the collar nut is positioned inside the clevis housing.

6. Using the gauge supplied with the new slack adjuster, adjust the clevis. See **Fig. 5**.

6.1 Place the 1/2-inch hole in the gauge over the end of the large clevis pin.

6.2 Align the applicable 1/4-inch hole in the lower part of the gauge with the center of the camshaft.

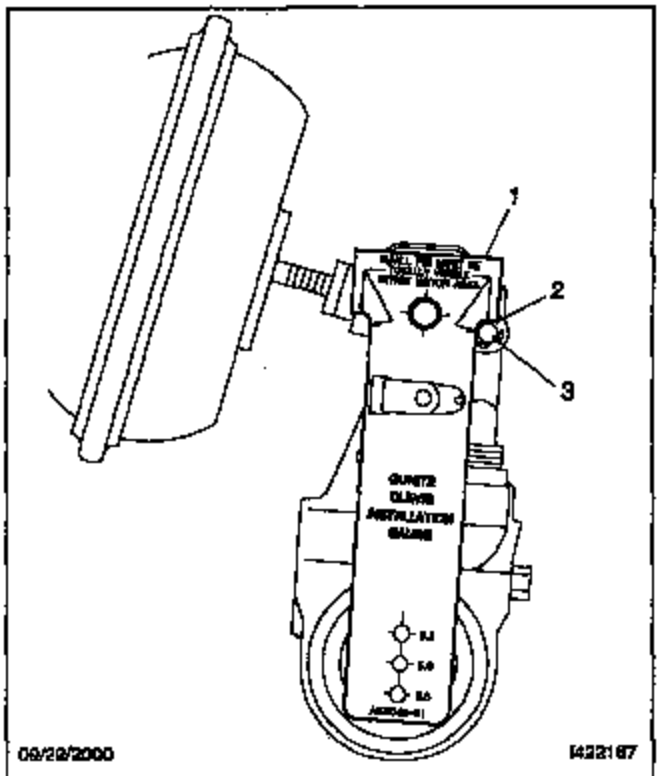
6.3 Turn the 3/4-inch collar nut until all of the small clevis pin is visible in the notched area of the gauge.

6.4 Check the alignment of the lower part of the gauge again. The 1/4-inch hole in the gauge must still be centered on the camshaft.

IMPORTANT: The pushrod must be installed in the clevis at least 1/2 inch (13 mm) and not extend beyond it more than 1/8 inch (3 mm).

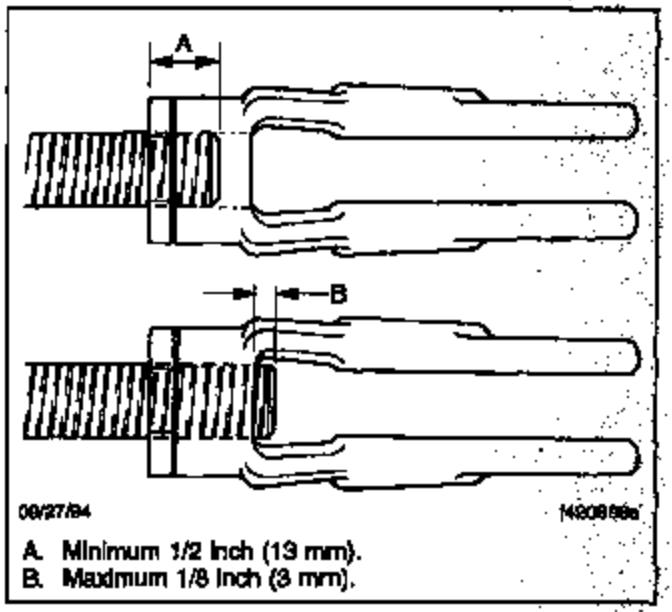
6.5 Make sure there is at least 1/2 inch (13 mm) of thread engagement between the clevis and the pushrod. Also, check that the pushrod does not extend through the clevis more than 1/8 inch (3 mm). See **Fig. 6**.

- If the pushrod is too long, mark it, remove the clevis, and cut the pushrod to the correct length.




1. Installation Gauge
2. Notched Area on Gauge
3. Small Clevis Pin

**Fig. 5, Clevis Adjustment**




A. Minimum 1/2 inch (13 mm).
B. Maximum 1/8 inch (3 mm).

**Fig. 6, Check Pushrod Engagement**

- If the pushrod is too short, remove the clevis and pushrod, and cut and install a new one.

7. Thread the 1-1/4-inch locknut onto the clevis and tighten 40 to 50 lbf·ft (54 to 68 N·m).
8. Tighten the 5/8-inch jam nut against the locknut. Tighten the jam nut 40 to 50 lbf·ft (54 to 68 N·m).

**⚠ CAUTION**

**Be sure to tighten the jam nut. Failure to do so may allow the collar nut to turn, which could prevent the automatic slack adjuster from working correctly.**

### Brake Adjustment

1. Raise the front axle and place safety stands under the frame or axle. Be sure the stands will support the weight of the vehicle.
2. Fully release the brakes. The brake chamber pushrod must be fully retracted.
3. Set the initial brake chamber stroke (coarse adjustment).
   - 3.1 Turn the adjusting hexnut clockwise until the brake linings contact the drum.
   - 3.2 Then, turn the adjusting hexnut counterclockwise 1/2-turn. There should be about 30 lbf·ft (41 N·m) resistance and you will hear a ratcheting sound.
4. Measure and adjust the free-stroke.
   - 4.1 Measure the distance from the bottom of the brake chamber to the center of the large clevis pin. See **Fig. 7**, Ref. A. Record this measurement as dimension A.
   - 4.2 Using a pry bar as a lever, move the slack adjuster until the brake linings contact the brake drum.
   - 4.3 Measure the distance from the bottom of the brake chamber to the center of the large clevis pin again. See **Fig. 6**, Ref. B. Record this measurement as dimension B.

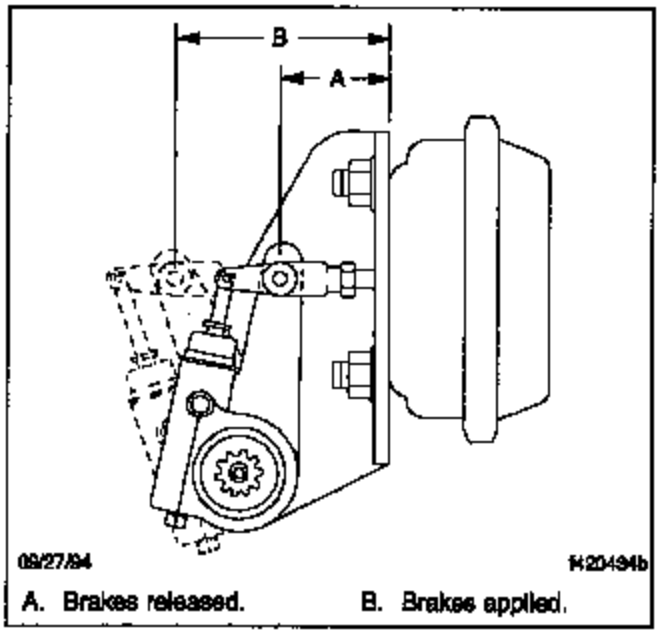



**Fig. 7, Measure the Stroke**

4.4 Subtract dimension A from dimension B. The difference between these measurements is the free-stroke.

4.5 The free-stroke should be 5/8 to 3/4 inch (16 to 19 mm). If it is not, turn the adjusting nut in the required direction. Then, measure the free-stroke again and readjust it until it is correct.

5. Measure and adjust the applied chamber stroke (fine adjustment).

5.1 Start the engine and build air pressure to 100 psi (689 kPa). Shut down the engine.

5.2 Fully apply the brakes. Then, measure the distance from the bottom of the brake chamber to the center of the large clevis pin. See Fig. 6, Ref. B. Record this measurement as dimension C.

5.3 Subtract dimension A (measured in the previous step) from dimension C. The difference between these measurements is the applied chamber stroke.

5.4 The applied chamber stroke must not exceed the value listed in Table 4. If the stroke is not correct, turn the adjusting hexnut in the required direction. Then, measure the applied stroke again and adjust it until it is correct.

| Chamber Size | Maximum Chamber Stroke, in (mm) | |
|---|---|---|
| | Standard Stroke | Long Stroke |
| 16<br>20 | 1-3/4 (44) | 2 (51) |
| 24 | 1-3/4 (44) | 2 (51)—*2-1/2 inch rated stroke*<br>2-1/4 (83)—*3-inch rated stroke* |
| 30 | 2 (51) | 2-1/2 (57) |

**Table 4, Maximum Adjusted Brake Chamber Stroke**

IMPORTANT: Make sure there is clearance between the slack adjuster and other vehicle components when the brakes are applied and the push rod travels its maximum stroke.

6. Apply the parking brakes.

7. Remove the safety stands and lower the front axle. Remove the chocks from the tires.

## Brake Test

**⚠ WARNING**

**Do not operate the vehicle until the brakes have been checked for proper operation. To do so could result in inadequate or no braking ability, which could cause personal injury or death, and property damage.**

1. Before you put the vehicle in service, check for proper brake operation in a safe area.

1.1 Apply and release the brakes several times to check for proper operation.

1.2 Perform several low-speed stops to ensure full vehicle control.

2. Enter the recall number and the date the work was performed on a completion label (Form W–147). Clean an area on the frontwall under the dash on the driver's side of the vehicle and attach the label.